

US EPA ARCHIVE DOCUMENT



EPA/NASA JOINT PROGRAM ON ECOSYSTEM RESTORATION

Interagency Announcement of Opportunity

Closing Date: February 28, 1997



Environmental Protection Agency



National Aeronautics and Space Administration

EPA does not intend to mail this announcement in large quantities. Additional information, forms, etc., should be obtained by consulting our homepage <http://www.epa.gov/ncerqa> and downloading what is needed.

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INTRODUCTION

The loss of essential natural resources which the United States is experiencing presents a serious long-term threat to the nation's economic prosperity and security and the sustainability of remaining ecological systems. Restoration of ecological systems has been recognized as a major tool for reaching Clean Water Act goals. As a result, EPA's Five Year Strategic Plan (July 1994) specifies that the Agency will upgrade its ability to protect, maintain, and restore the ecological integrity of the nation's land and water, urban areas, and plant and animal species, including human health, by adopting a place-based focus. NASA's Mission to Planet Earth (MTPE) has the long term mission of developing our understanding of the whole Earth system and the effects on the global environment of natural and human-induced changes (MTPE Strategic Enterprise Plan, 1996). MTPE comprises an integrated slate of spacecraft and in situ measurement capabilities; data and information management systems to acquire, process, archive, and distribute global data sets; and research and analysis programs to convert data into new knowledge of the Earth system. Numerous users in academia, industry, and Federal, State, and Local government tap this knowledge to produce products and services essential to achieving sustainable development.

By "place-based" we mean consideration of an area or subregion from the standpoint of particular cultural, physical, ecological, or other characteristics with which people identify or assign value. A place-based approach is best suited for decision-making at the local to state level. Experience has taught that every ecosystem has its own peculiar characteristics such that theoretical or generalized studies frequently have little applicability to specific sites. Thus, we are suggesting the need for research which focuses on a specific site, but through which we can establish general principles and approaches to other sites.

The National Research Council has defined "restoration" in the ecosystem context as "the return of an ecosystem to a close approximation of its condition prior to disturbance." Ecosystem rehabilitation is seen as the restoration of those ecosystem characteristics deemed desirable by society with perhaps some new characteristics that may not have been originally present. In this concept, there is implicit the understanding that many watersheds which have been disturbed can never return to their original state but in fact may acquire new, socially acceptable characteristics different from their original condition. *The challenge is to develop a framework whereby resource managers can define realistic and achievable goals for ecosystems at the watershed level.*

Description

This solicitation complements the ongoing research program in EPA Laboratories and is consistent with the goals and objectives of the ecologically-based programs within NASA's MTPE. The EPA Office of Research and Development's (ORD) in-house program is focused (1) on the development of ecosystem restoration practices and (2) on technologies that facilitate cost effective decision-making by local communities and stakeholder groups engaged in watershed planning and place-based environmental protection. The MTPE Research Strategy for Land-Cover and Land-Use Change seeks to understand the consequences of land-cover and land-use change for continued provision of ecological goods and services and, therefore, to develop the capability to perform repeated global inventories of land-cover and land-use from space. This would allow us to develop the scientific understanding and models necessary to evaluate the consequences of observed changes. Within this strategy, the Terrestrial Ecology Program seeks to improve understanding of the structure and function of global terrestrial ecosystems, their interactions with the atmosphere and hydrosphere, and their role in the cycling of the major biogeochemical elements and water. Thus, research focused on how to restore ecosystems' functionality is of substantial interest to MTPE. The purpose of this solicitation is, therefore, to support the development of the scientific framework required to diagnose existing ecosystems, establish the basis to prioritize ecosystems that should be restored, describe effectiveness criteria for incremental improvements, and describe desirable endpoints for ecosystem restoration/rehabilitation.

The most competitive proposals will focus on the urbanized or urbanizing watershed. While not excluding other areas, this effort will place special emphasis on the developing fringe upstream of urbanized areas character-

ized by Standard Metropolitan Statistical Areas (SMSAs). These are the areas where conflicts between infrastructure development and reasonably healthy but impacted ecosystems are significant, and the greatest opportunity exists for return on investments made in constructive change. Rehabilitation potential is the least understood in such areas, but rehabilitation would potentially benefit the largest percentage of the population. Rehabilitation potential in the urbanized or urbanizing watershed should be viewed in the broad geomorphologic context. Land use activities and riparian structure and function in the upland reaches of the watershed are critically important in assessing the restoration potential of downstream ecosystems. These areas, in fact, may be the most important focus of an urban watershed rehabilitation.

The U.S. Environmental Protection Agency and the National Aeronautics and Space Administration seek research proposals to address fundamental concepts of ecosystem rehabilitation in the context of the larger watershed. This competition emphasizes fundamental research on important scientific principles related to watershed rehabilitation. A framework based on a systems approach should be developed that addresses some or all of the following questions:

- (1) What set of characteristics/functions of ecosystems are amenable to being restored/rehabilitated from specific environmental insults? How will the degree of restoration be evaluated, monitored, and put into both temporal and regional contexts?
- (2) To what degree does knowledge of basic ecosystem processes lead to practical rehabilitation programs/projects? How can realistic rehabilitation/restoration goals and priorities be set on the basis of process-level understanding?
- (3) What are both environmentally and economically appropriate approaches for setting restoration/rehabilitation priorities at both system-levels and process-levels?

Additional Considerations

You must ensure that the research proposed is significantly different from that in any other application you have submitted to a current competition and/or from any other grant you are currently receiving from EPA, NASA, or any other federal government agency.

This competition will not support site-specific projects for the sole purpose of restoration. As a general rule, proposals with an empirical component should make

use of ongoing restoration efforts. New restoration efforts may be implemented only if the primary purpose is R&D, such as developing or validating models. Community partnerships are encouraged where the community funds the restoration effort and this grant funds the basic research associated with questions 1-3 elaborated above.

Funding

Approximately \$4 million will be made available for this competition, with a projected award range of \$100,000 to \$300,000 per year and a duration of 3 years. Awards are subject to the availability of funds

ELIGIBILITY

Not-for-profit scientific research and educational institutions located in the U.S., and state or local governments are eligible to apply under this solicitation. Profit-making firms are not eligible to receive assistance under this program.

Researchers in federal agencies may submit applications, but federal employees may not request salary reimbursement. Federal employees may cooperate or collaborate with other eligible applicants within the limits imposed by applicable legislation and regulations. Researchers in the Department of Energy National Laboratories are eligible to apply.

EPA and NASA welcome applications on behalf of all qualified scientists, engineers, and other professionals, and strongly encourage women, minorities, and persons with disabilities to compete fully in this program.

In accordance with Federal statutes and regulations and EPA and NASA policies, no person on grounds of race, color, age, sex, national origin, or disability shall be excluded from participation in, denied the benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from the Environmental Protection Agency or the National Aeronautics and Space Administration.

INSTRUCTIONS FOR APPLICATION SUBMISSION

At various places within the application, applicants will be asked to identify the topic area by using the Sorting Code, **97-NCERQA-15**. The Sorting Code must be placed

at the top of the abstract (as shown in the abstract format), on the title page (as shown in the title page format), and should also be included in the address on the package that is sent to EPA.

THE APPLICATION

The initial application is made through the submission of the materials described below. **It is essential that the application contain all the information requested and be submitted in the formats described.** If it is not, the application may be rejected on administrative grounds. If an application is considered for award (i.e., after external peer review and internal review), additional forms and other information will be requested by the Project Officer. **The application should not be bound or stapled in any way.** The Application contains the following:

- A. Standard Form 424:** The applicant must complete Standard Form 424 (see attached form and instructions). This form will act as a cover sheet for the application and **should be its first page**. Instructions for completion of the SF424 are included with the form. The form must contain the original signature of an authorized representative of the applying institution. Please note that both the Principal Investigator and an administrative contact should be identified in section 5 of the SF424. The sorting code, **97-NCERQA-15**, should be placed in section 10 of the SF424.
- B. Key Contacts:** The applicant must complete the Key Contacts Form (attached) as the **second page** of the submitted application.
- C. Abstract: The abstract is a very important document.** Prior to attending the peer review panel meetings, some of the panelists may read only the abstract. Therefore, it is critical that the abstract accurately describe the research being proposed and convey all the essential elements of the research. Also, in the event of an award, the abstracts will form the basis for an Annual Report of awards made under this program. The abstract must be limited to one page in the format shown in the attachment. The abstract should include the following information:

- 1. Sorting Code:** Use the correct code, 97-NCERQA-15.
- 2. Title:** Use the exact title as it appears in the rest of the application.

3. Investigators: List the names and affiliations of each investigator who will significantly contribute to the project. Start with the Principal Investigator.

4. Project Summary: This should summarize: (a) the **objectives** of the study (including any hypotheses that will be tested), (b) the experimental **approach** to be used (which should give an accurate description of the project as described in the proposal), (c) the **expected results** of the project and how it addresses the research needs identified in the solicitation, and (d) the estimated improvement in risk assessment or risk management that will result from successful completion of the work proposed.

- D. Project Description:** This description must not exceed fifteen (15) consecutively numbered (center bottom), 8.5x11 inch pages of single-spaced standard 12-point type with 1 inch margins. The description must provide the following information:

1. Objectives: List the objectives of the proposed research and the hypotheses being tested during the project and briefly state why the intended research is important. This section can also include any background or introductory information that would help explain the objectives of the study (one to two pages recommended).

2. Approach: Outline the methods, approaches, and techniques that you intend to employ in meeting the objective stated above (five to 10 pages recommended).

3. Expected Results or Benefits: Describe the results you expect to achieve during the project and the benefits of success as they relate to the topic under which the proposal was submitted. This section should also discuss the utility of the research project proposed for addressing the environmental problems described in the solicitation (one to two pages recommended).

4. General Project Information: Discuss other information relevant to the potential success of the project. This should include facilities, personnel, project schedules, proposed management, interactions with other institutions, etc. (one to two pages recommended).

5. Important Attachments: Appendices and/or other information may be included but must remain within the 15-page limit. References are in addition to the 15 pages.

- E. Resumes:** The resumes of all principal investigators and important co-workers should be presented. Resumes must not exceed two consecutively numbered (bottom center), 8.5x11 inch pages of single-spaced standard 12-point type with 1 inch margins for each individual.
- F. Current and Pending Support:** The applicant must identify any current and pending financial resources that are intended to support research related to that included in the proposal or which would consume the time of principal investigators. This should be done by completing the appropriate form (see attachment) for each investigator and other senior personnel involved in the proposal. Failure to provide this information may delay consideration of your proposal.
- G. Budget:** The applicant must present a detailed, itemized budget for the entire project. This budget must be in the format provided (see attachment) and not exceed two consecutively numbered (bottom center), 8.5x11 inch pages with 1 inch margins. Please note that institutional cost sharing is not required and, therefore, does not have to be included in the budget table. If desired, a brief statement concerning cost sharing can be added to the budget justification.
- H. Budget Justification:** This section should describe the basis for calculating the personnel, fringe benefits, travel, equipment, supplies, contractual support, and other costs identified in the itemized budget and explain the basis for their calculation (special attention should be given to explaining the travel, equipment, and other categories). This should also include an explanation of how the indirect costs were calculated. This justification should not exceed two consecutively numbered (bottom center), 8.5x11 inch pages of single-spaced standard 12-point type with 1 inch margins.
- I. Quality Assurance Narrative Statement:** For awards that involve environmentally related measurements or data generation, a quality system that complies with the requirements of ANSI/ASQC E4, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs," must be in place. This statement should not exceed two consecutively numbered, 8.5x11 inch pages of single-spaced standard 12-point type with 1 inch margins. This is in addition to the 15 pages permitted for the Project Description. The Quality Assurance Narrative

Statement should, for each item listed below, either present the required information or provide a justification as to why the item does not apply to the proposed research.

1. The data collection activities to be performed or hypothesis to be tested (reference may be made to the specific page and paragraph number in the application where this information may be found); acceptance criteria for data quality (precision, accuracy, representativeness, completeness, comparability).
2. The study design including sample type and location requirements and any statistical analyses that were used to estimate the types and numbers of samples required.
3. The procedures for the handling and custody of samples, including sample identification, preservation, transportation, and storage.
4. The methods that will be used to analyze samples collected, including a description of the sampling and/or analytical instruments required.
5. The procedures that will be used in the calibration and performance evaluation of the sampling and analytical methods used during the project.
6. The procedures for data reduction and reporting, including description of statistical analyses to be used.
7. The intended use of the data as they relate to the study objectives or hypotheses.
8. The quantitative and or qualitative procedures that will be used to evaluate the success of the project.
9. Any plans for peer or other reviews of the study design or analytical methods prior to data collection.

ANSI/ASQC E4, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" is available for purchase from the American Society for Quality Control, phone 1-800-248-1946, item T55. Only in exceptional circumstances should it be necessary to consult this document.

- J. Postcard:** The Applicant must include with the application a self-addressed, stamped 3x5 inch post card. This will be used to acknowledge receipt of the application and to transmit other important information to the applicant.

REVIEW AND SELECTION

All grant applications are initially reviewed by EPA and NASA to determine their legal and administrative acceptability. Acceptable applications are then reviewed by an appropriate technical peer review group. This review is designed to evaluate each proposal according to its scientific merit. In general, each review group is composed of non-EPA/ NASA scientists, engineers, social scientists, and/or economists who are experts in their respective disciplines and are proficient in the technical areas they are reviewing. The reviewers use the following criteria to help them in their reviews:

1. The originality and creativity of the proposed research, the potential contribution the proposed research could make to advance scientific knowledge in the environmental area, the appropriateness and adequacy of the research methods proposed, and the appropriateness and adequacy of the Quality Assurance Narrative Statement
2. The qualifications of the principal investigator(s) and other staff, including knowledge of pertinent literature, experience, and publication records as well as the probability that the proposed research will be successfully completed
3. The availability and/or adequacy of the facilities and equipment proposed for the project
4. The responsiveness of the proposal to the research needs set forth in the solicitation
5. Although budget information is not used by the reviewers as the basis for their evaluation of scientific merit, the reviewers are asked to provide their view on the appropriateness and/or adequacy of the proposed budget and its implications for the potential success of the proposed research. Input on requested equipment is of particular interest.

Applications that receive scores of excellent and very good from the peer reviewers are subjected to a programmatic review within EPA or NASA, the object being to assure a balanced research portfolio for each Agency. Scientists from the agency Laboratories and Program and Regional Offices review these applications in relation to program priorities and their complementarity to intramural programs and recommend selections for funding.

A summary statement of the scientific review of the panel will be provided to each applicant. Funding decisions

are the sole responsibility of the sponsoring agencies. Grants are selected on the basis of technical merit, relevancy to the research priorities outlined, program balance, and budget.

HOW TO APPLY

The original and ten (10) copies of the fully developed application and five (5) additional copies of the abstract (15 in all) must be received by NCERQA no later than 4:00 P.M. EST on the closing date, February 28, 1997.

The application and abstract must be prepared in accordance with these instructions. Informal, incomplete, or unsigned proposals will not be considered. Completed applications should be sent via regular or express mail to:

**U.S. Environmental Protection Agency
Peer Review Research Division (8703)
Sorting Code: 97-NCERQA-15
Room 2411
401 M Street, SW
Washington DC 20460**

Applications sent via express mail should have the following telephone number listed on the express mail label: (202) 260-0563

Guidelines, Limitations, and Additional Requirements

Subcontracts for research to be conducted under the grant which exceed 40% of the total direct cost of the grant for each year in which the subcontract is awarded will be subject to special review.

Researchers will be expected to participate in an annual All-Investigators Meeting with EPA and NASA scientists and other grantees to report on research activities and to discuss issues of mutual interest.

Proprietary Information

By submitting an application in response to this solicitation, the applicant grants EPA and NASA permission to share the application with technical reviewers both within and outside of the Agency. Applications containing proprietary or other types of confidential information will be returned to the applicant without review.

Funding Mechanism

The funding mechanism for all awards issued under this solicitation will consist of grants from either EPA or NASA, at the option of the Agencies, and depends on the availability of funds. In accordance with Public Law 95-224, the primary purpose of a grant is to accomplish a public purpose of support or stimulation authorized by Federal statute rather than acquisition for the direct benefit of the Government.

Grants awarded as a result of this announcement will be administered in accordance with 40 CFR Part 30 and 40, or the latest FDP terms and conditions, depending upon the grantee institution.

In this competition awards will be provided for research in the sciences and engineering related to environmental protection. The awardee is solely responsible for the conduct of such activities and preparation of results for publication. EPA and NASA, therefore, do not assume responsibility for such findings or their interpretation.

CONTACTS

Additional information on EPA grants programs, forms used for applications, etc., may be obtained by exploring our Web page at <http://www.epa.gov/ncerqa>. Information not available on the Internet may be obtained by contacting:

U.S. Environmental Protection Agency
National Center for Environmental Research
and Quality Assurance (8703)
401 M Street, SW
Washington DC 20460
Phone: 1-800-490-9194

Contact persons from each agency are identified below. They will respond to inquiries regarding the solicitation and can respond to any technical questions related to your application.

EPA: Barbara Levinson 202-260-5983
levinson.barbara@epamail.epa.gov

NASA: Tony Janetos 202-358-0276
anthony.janetos@hq.nasa.gov

| | | | | | | | | |
|---|--|---|--|--|----------------------|----------------------------|--|--|
| APPLICATION FOR FEDERAL ASSISTANCE | | | 2. DATE SUBMITTED | | Applicant Identifier | | | |
| 1. TYPE OF SUBMISSION <i>Application</i> <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction | | <i>Preapplication</i> <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction | | 3. DATE RECEIVED BY STATE | | State Applicant Identifier | | |
| | | | | 4. DATE RECEIVED BY FEDERAL AGENCY | | Federal Identifier | | |
| 5. APPLICANT INFORMATION | | | | | | | IS THIS PROPOSAL BEING SUBMITTED TO ANOTHER FEDERAL AGENCY? <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, LIST ACRONYM(S) | |
| Legal Name: | | | | Organizational Unit: | | | | |
| Address (give city, county, state, and zip code): | | | | Name and telephone and E-mail number of the person to be contacted on matters involving this application (give area code) PI: ADMIN. CONTACT: | | | | |
| 6. EMPLOYER IDENTIFICATION NUMBER (EIN): <div><div></div><div></div><div></div> - <div></div><div></div><div></div><div></div><div></div><div></div></div> | | | | 7. TYPE OF APPLICANT: (enter appropriate letter in box) <div></div> <div>A. State B. County C. Municipal D. Township E. Interstate F. Intermunicipal G. Special District</div> <div>H. Independent School Dist. I. State Controlled Institution of Higher Learning J. Private University K. Indian Tribe L. Individual M. Profit Organization N. Other (Specify) _____</div> | | | | |
| 8. TYPE OF APPLICATION: <div><input type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision</div> <div>If Revision, enter appropriate letter(s) in box(es): <div></div> <div></div><div>A. Increase Award B. Decrease Award C. Increase Duration D. Decrease Duration Other (specify): _____</div></div> | | | | 9. NAME OF FEDERAL AGENCY: U.S. Environmental Protection Agency - ORD - NCERQA | | | | |
| 10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: | | <div><div>6</div><div>6</div><div>.</div><div>5</div><div>0</div><div>0</div></div> | | 11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: | | | | |
| TITLE: 97-NCERQA - _ _ _ | | | | | | | | |
| 12. AREAS AFFECTED BY PROJECT (cities, counties, states, etc.): | | | | | | | | |
| 13. PROPOSED PROJECT: | | | 14. CONGRESSIONAL DISTRICTS OF: | | | | | |
| Start Date | | Ending Date | | a. Applicant | | b. Project | | |
| 15. ESTIMATED TOTAL PROJECT FUNDING: | | | 16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS? | | | | | |
| a. Federal | | \$.00 | | a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON: DATE _____ | | | | |
| b. Applicant | | \$.00 | | b. NO. <input type="checkbox"/> PROGRAM IS NOT COVERED BY E.O. 12372 | | | | |
| c. State | | \$.00 | | <input type="checkbox"/> OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW | | | | |
| d. Local | | \$.00 | | | | | | |
| e. Other | | \$.00 | | | | | | |
| f. Program Income | | \$.00 | | 17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT? | | | | |
| g. TOTAL | | \$.00 | | <input type="checkbox"/> Yes If "Yes," attach an explanation. <input type="checkbox"/> No | | | | |
| 18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT. THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED. | | | | | | | | |
| a. Typed Name of Authorized Representative | | | | b. Title | | c. Telephone number | | |
| d. Signature of Authorized Representative | | | | | | e. Date Signed | | |

INSTRUCTIONS FOR THE SF 424

This is a standard form used by applicants as a required facesheet for preapplications and applications submitted for Federal Assistance. It will be used by Federal agencies to obtain applicant certification that States which have established a review and comment procedure in response to Executive Order 12372 and have selected the program to be included in their process, have been given an opportunity to review the applicant's submission.

- | Item: | Entry: | Item: | Entry: |
|-------|--|-------|---|
| 1. | Self-explanatory. | 12. | List only the largest political entities affected (e.g., State, counties, cities.) |
| 2. | Date application submitted to Federal agency (or State, if applicable) & applicant's control number (if applicable). | 13. | Self-explanatory. |
| 3. | State use only (if applicable). | 14. | List the applicant's Congressional Districts and any District(s) affected by the program or project. |
| 4. | If this application is to continue or revise an existing award, enter present Federal identifier number. If for a new project, leave blank. | 15. | Amount requested or to be contributed during the first funding/budget period by each contributor. Value of in-kind contributions should be included on appropriate lines as applicable. If the action will result in a dollar change to an existing award, include <u>only</u> the amount of the change. For decreases, enclose the amounts in parentheses. If both basic and supplemental amounts are included, show breakdown on an attached sheet. For multiple program funding, use totals and show breakdown using same categories as item 15. |
| 5. | Legal name of applicant, name of primary organizational unit which will undertake the assistance activity, complete address of the applicant, and name and telephone number of the person to contact on matters related to this application. | 16. | Applicants should contact the State Single Point of Contact (SPOC) for Federal Executive Order 12372 to determine whether the application is subject to the State intergovernmental review process. |
| 6. | Enter Employer Identification Number (EIN) as assigned by the Internal Revenue Service. | 17. | This question applies to the applicant organization, not the person who signs as the authorized representative. Categories of debt include delinquent audit allowances, loans and taxes. |
| 7. | Enter the appropriate letter in the space provided. | 18. | To be signed by the authorized representative of the applicant. A copy of the governing body's authorization for you to sign this application as official representative must be on file in the applicant's office. (Certain Federal agencies may require that this authorization be submitted as part of the application.) |
| 8. | Check appropriate box and enter appropriate letter(s) in the space(s) provided: — "New" means a new assistance award. — "Continuation" means an extension for an additional funding/budget period for a project with a projected completion date. — "Revision" means any change in the Federal Government's financial obligation or contingent liability from an existing obligation. | | |
| 9. | Name of Federal agency from which assistance is being requested with this application. | | |
| 10. | Use the Catalog of Federal Domestic Assistance number and title of the program under which assistance is required. | | |
| 11. | Enter a brief descriptive title of the project. If more than one program is involved, you should append an explanation on a separate sheet. If appropriate (e.g., construction or real property projects), attach a map showing project location. For preapplications, use a separate sheet to provide a summary description of this project. | | |

KEY CONTACTS FORM

Authorized Representative: *Original awards and amendments will be sent to this individual for review and acceptance, unless otherwise indicated.*

Name: _____
Title: _____
Complete Address: _____

Phone Number: _____

Payee: *Individual authorized to accept payments.*

Name: _____
Title: _____
Complete Address: _____

Phone Number: _____

Administrative Contact: *Individual from Sponsored Programs Office to contact concerning administrative matters (i.e., indirect cost rate computation, rebudgeting requests etc.)*

Name: _____
Title: _____
Complete Address: _____

Phone Number: _____
FAX Number: _____
E-Mail Number: _____

Principal Investigator: *Individual responsible for the technical completion of the proposed work.*

Name: _____
Title: _____
Complete Address: _____

Phone Number: _____
FAX Number: _____
E-Mail Number: _____

Abstract Format (*Example Format*)

1. Sorting Code:

2. Title:

3. Investigators:

4. Project Summary:

a. Objectives/Hypotheses:

b. Approach:

SAMPLE ONLY

c. Expected Results:

**d. Estimated Improvement in Risk Assessment
or Risk Management**

Itemized Budget for ORD Grant Applications (*Example Format*)

| CATEGORIES | YEAR ONE | YEAR TWO | YEAR THREE | TOTAL PROJECT |
|--|----------|----------|------------|---------------|
| a. Personnel Principal Investigator Co-PI Research Scientists Postdoctoral Scientists Other Personnel | | | | |
| TOTAL PERSONNEL COSTS | | | | |
| b. Fringe Benefits _____ % of _____ | | | | |
| c. Travel Trip 1 Trip 1 Trip 1 ...etc. | | | | |
| TOTAL TRAVEL COSTS | | | | |
| d. Equipment Item 1 Item 2 Item 3 ...etc. | | | | |
| TOTAL EQUIPMENT COSTS | | | | |
| e. Supplies Item 1 Item 2 Item 3 ...etc. | | | | |
| TOTAL SUPPLY COSTS | | | | |
| f. Contracts 1 2 3 ...etc. | | | | |
| TOTAL CONTRACTUAL COSTS | | | | |
| g. Other Item 1 Item 2 Item 3 ...etc. | | | | |
| TOTAL OTHER COSTS | | | | |
| h. TOTAL DIRECT COSTS (sum of a-g) | | | | |
| i. Indirect Costs/Charges _____ % of _____ (base) | | | | |
| j. TOTAL PROJECT COSTS (sum of i & j) | | | | |
| k. TOTAL REQUESTED FROM EPA | | | | |

Current and Pending Support

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

| | |
|---------------|---|
| Investigator: | Other agencies to which this proposal has been/will be submitted. |
|---------------|---|

| | | | | |
|--|----------------------------------|----------------------------------|--|-------|
| Support: | <input type="checkbox"/> Current | <input type="checkbox"/> Pending | <input type="checkbox"/> Submission Planned in Near Future | |
| Project/Proposal Title: | | | | |
| | | | | |
| Source of Support: | | | | |
| Total Award Amount: \$ | | Total Award Period Covered: | | |
| Location of Project: | | | | |
| Person-Months Per Year Committed to the Project. | | Cal: | Acad: | Sumr: |

| | | | | |
|--|----------------------------------|----------------------------------|--|-------|
| Support: | <input type="checkbox"/> Current | <input type="checkbox"/> Pending | <input type="checkbox"/> Submission Planned in Near Future | |
| Project/Proposal Title: | | | | |
| | | | | |
| Source of Support: | | | | |
| Total Award Amount: \$ | | Total Award Period Covered: | | |
| Location of Project: | | | | |
| Person-Months Per Year Committed to the Project. | | Cal: | Acad: | Sumr: |

| | | | | |
|--|----------------------------------|----------------------------------|--|-------|
| Support: | <input type="checkbox"/> Current | <input type="checkbox"/> Pending | <input type="checkbox"/> Submission Planned in Near Future | |
| Project/Proposal Title: | | | | |
| | | | | |
| Source of Support: | | | | |
| Total Award Amount: \$ | | Total Award Period Covered: | | |
| Location of Project: | | | | |
| Person-Months Per Year Committed to the Project. | | Cal: | Acad: | Sumr: |

| | | | | |
|--|----------------------------------|----------------------------------|--|-------|
| Support: | <input type="checkbox"/> Current | <input type="checkbox"/> Pending | <input type="checkbox"/> Submission Planned in Near Future | |
| Project/Proposal Title: | | | | |
| | | | | |
| Source of Support: | | | | |
| Total Award Amount: \$ | | Total Award Period Covered: | | |
| Location of Project: | | | | |
| Person-Months Per Year Committed to the Project. | | Cal: | Acad: | Sumr: |

| | | | | |
|--|----------------------------------|----------------------------------|--|-------|
| Support: | <input type="checkbox"/> Current | <input type="checkbox"/> Pending | <input type="checkbox"/> Submission Planned in Near Future | |
| Project/Proposal Title: | | | | |
| | | | | |
| Source of Support: | | | | |
| Total Award Amount: \$ | | Total Award Period Covered: | | |
| Location of Project: | | | | |
| Person-Months Per Year Committed to the Project. | | Cal: | Acad: | Sumr: |

If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.